

# 1. Driver's Blind View Spots

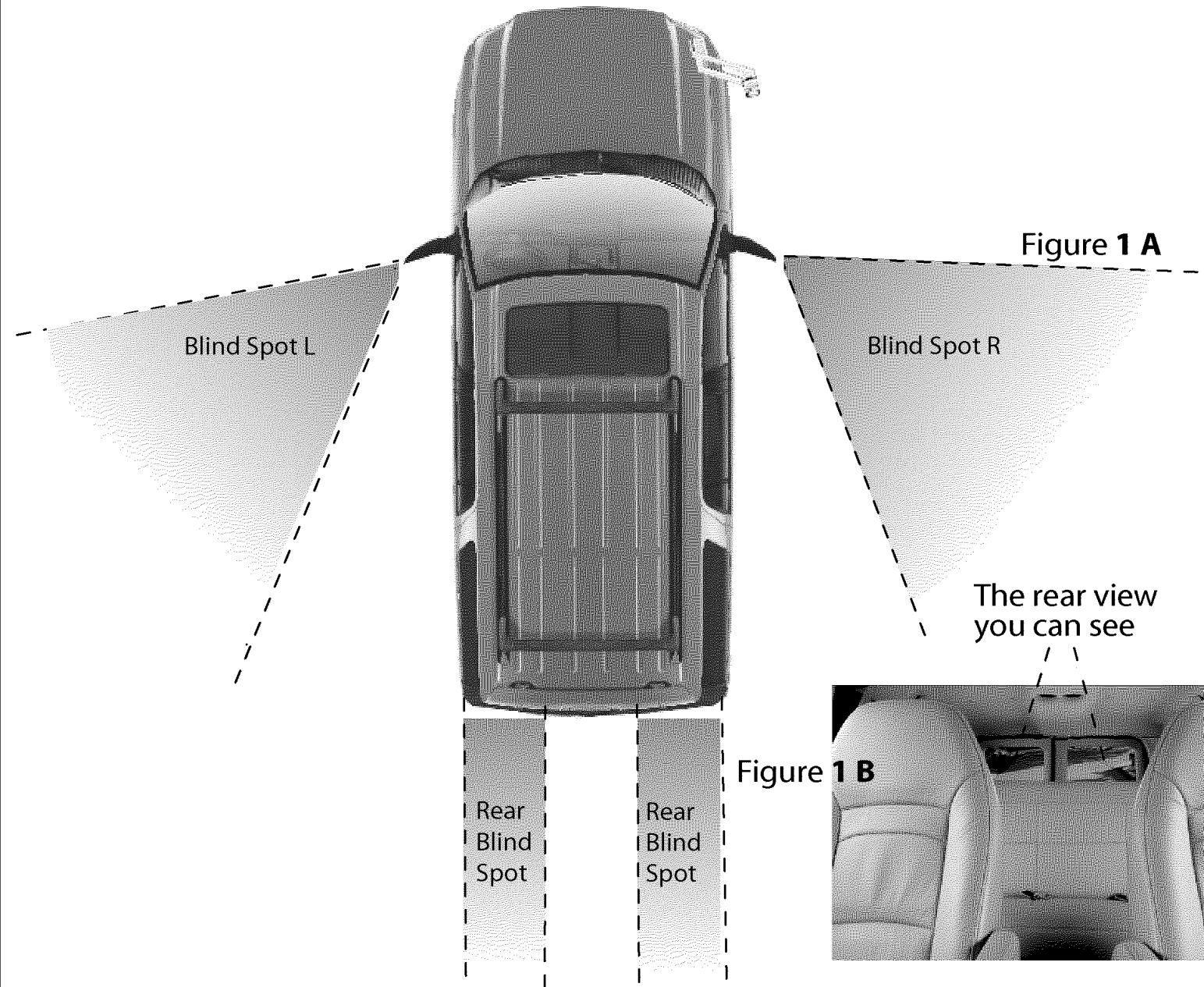
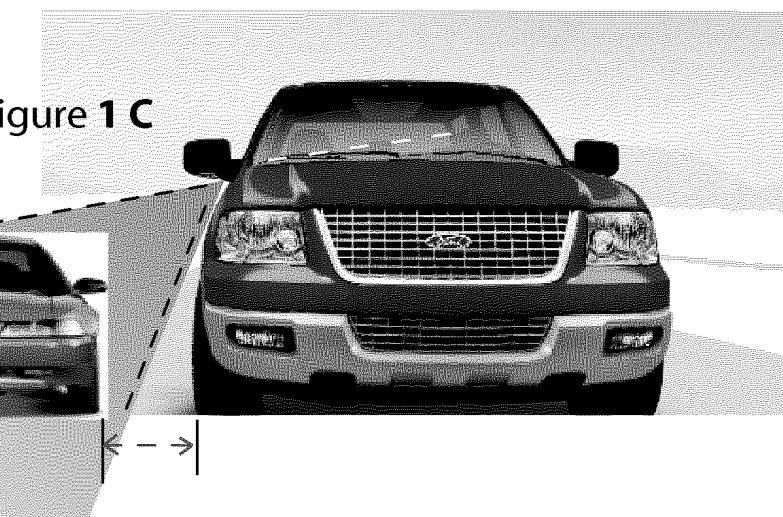


Figure 1 C

Viewable Upper Field

Hidden Spot



## 2. Driver's Other Blind Spots & Problems of Single Rear View Camera

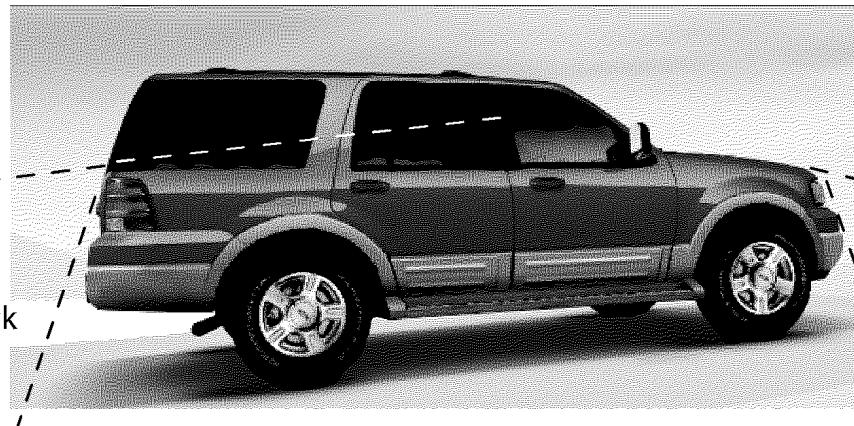


Figure 2A

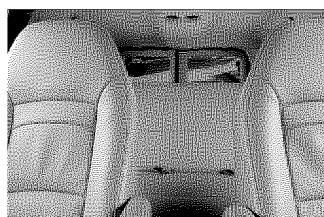


Figure 2B

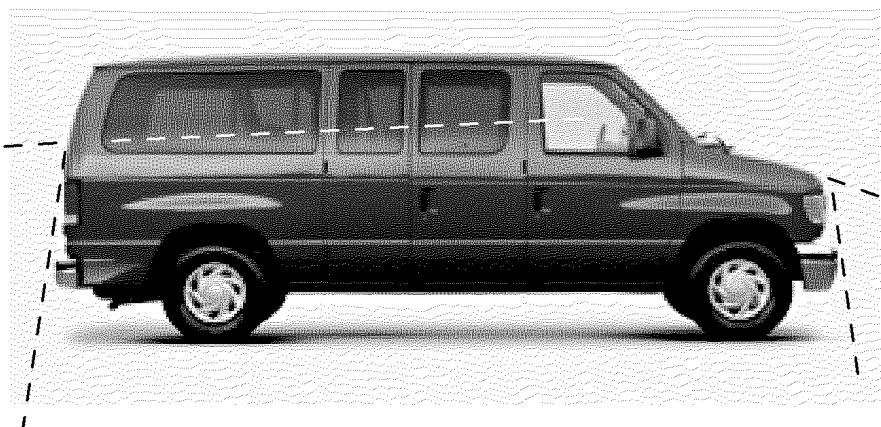
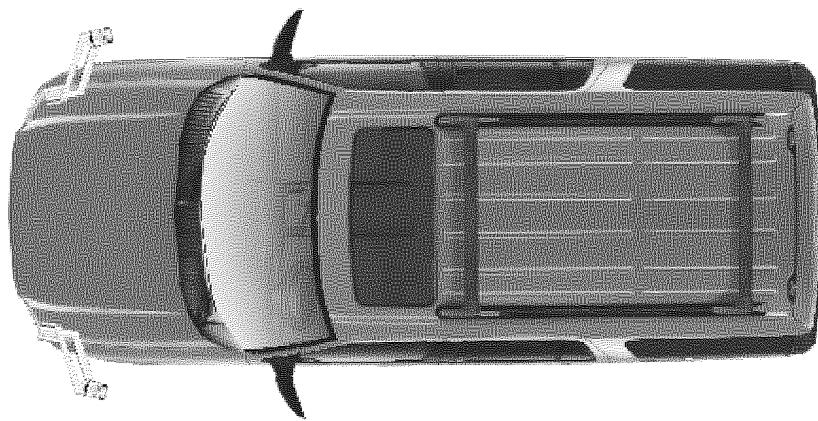


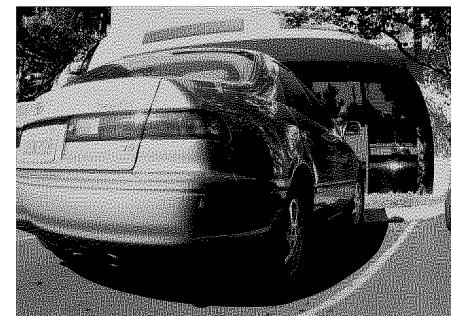
Figure 2C



### Single camera rear view problems

1. Blind spots at both side corners

Figure 2D



2. Convex outward distortion

Can not tell how far is the rear vehicle away from you !

Using fish eye wide angle Len view, Image distortion is serious.  
Video image of objects behind the vehicle is much smaller  
than image in side mirrors.

Can not measure the depth to object in behind.

### 3. Opto-Electronic CCD Cameras Eyes & Lens

Ultra Sensitive CCD, Super Night Vision Stars light View in Countryside  
Day & Night High Dynamic Luminous Processing with DSP Chip  
High Bright, High Optical Power & Low Distortion Lens

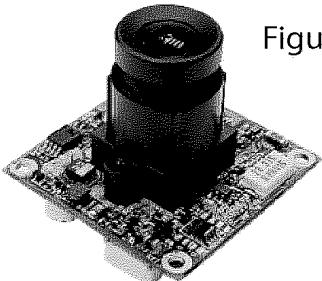


Figure 3A

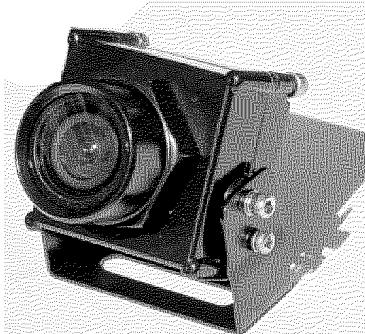
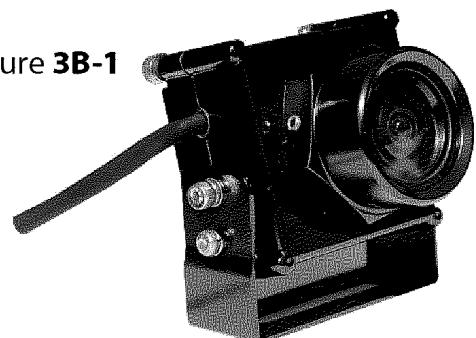


Figure 3B-1



+ Water proof rust-free  
aluminum enclosure

CCD camera PCB uses high tolerant  
luminux circuit design &  
the 6th generation DSP\*chip

Micro dimensions  
47 x 47 X 47 mm only



Figure 3B-2

Auto Focus Lens 60-15° degree  
for central rear 200 feet view.  
CS mount Len

DSP = Digital Signal Processor  
CCD = Couple Charged Device

#### New Design to Improve Focal Lens Image Definition & Distortion

Semi spherical type wide angle typical focal Len  
using in 1 camera type rear view

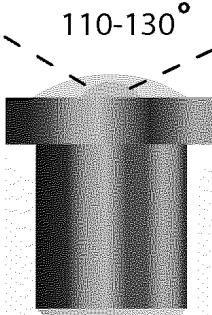
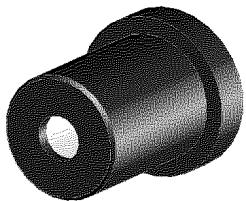


Figure 3C-1



4.5 mm small Len hole  
low image quality,  
low brightness &  
serious edge distortion

Lite arch 90° right angle Len  
using dual camera for rear view

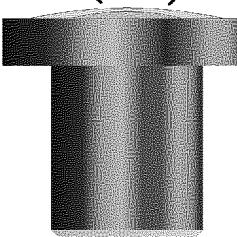
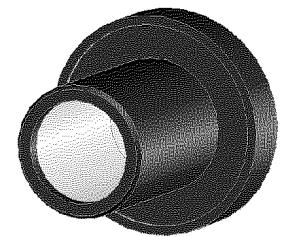


Figure 3C-2



8.5 mm twice large Len hole,  
high definition sharp image,  
high sensitive & high bright,  
High optical power, Low distortion



Figure 3D

Typical focal Len serious edge distortion



Custom made focal Len is low distortion

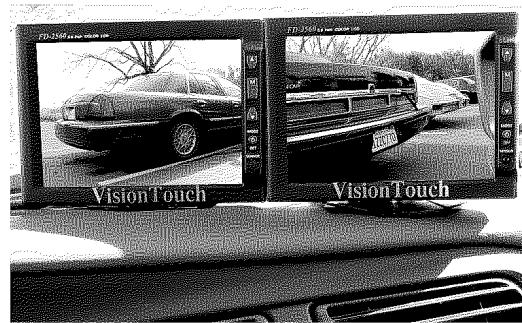
## 4. On Dash Mount Dual LCD Screen e-Mirrors

Auto or Manual Switch to Side view / Rear view

Figure 4A



The Dual e-Mirrors for small vehicles  
Rear View Mode



Switch-able to  
**Rear View Zoom in & Side View Mode**

Figure 4B

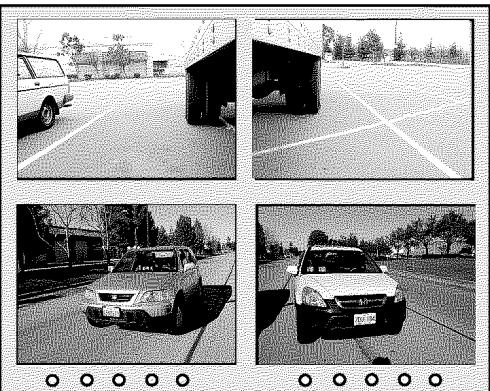


Figure 4C  
For Large Vehicles



## 5. License Plate L-R Stereo Mount Cameras Technique

### A Uniform Mount For All Vehicle

Figure 5 A

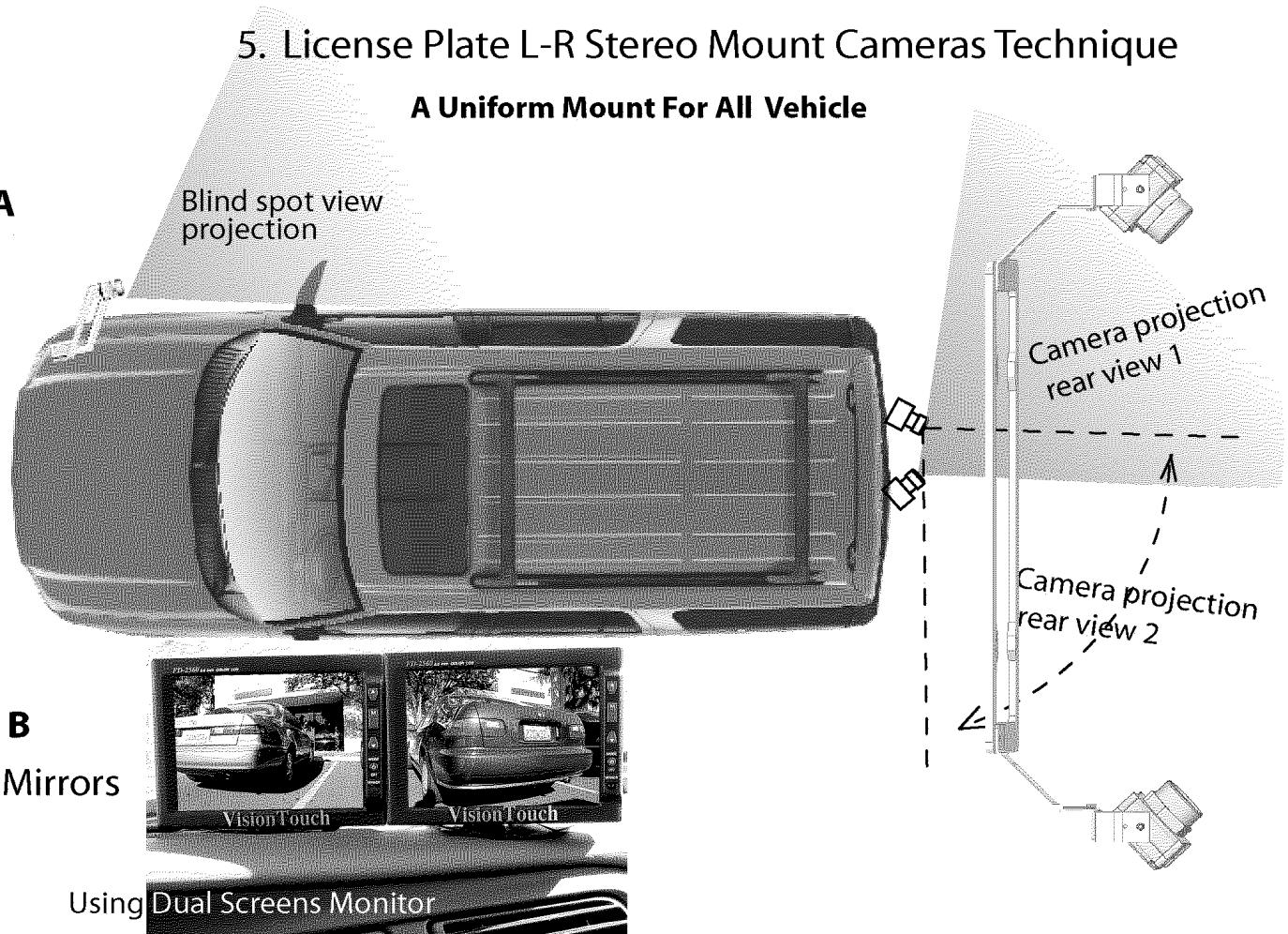


Figure 5 B

The e-Mirrors

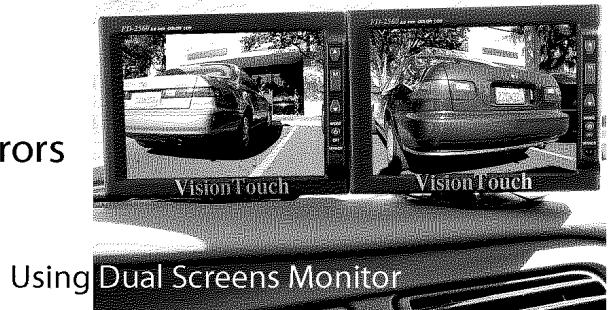
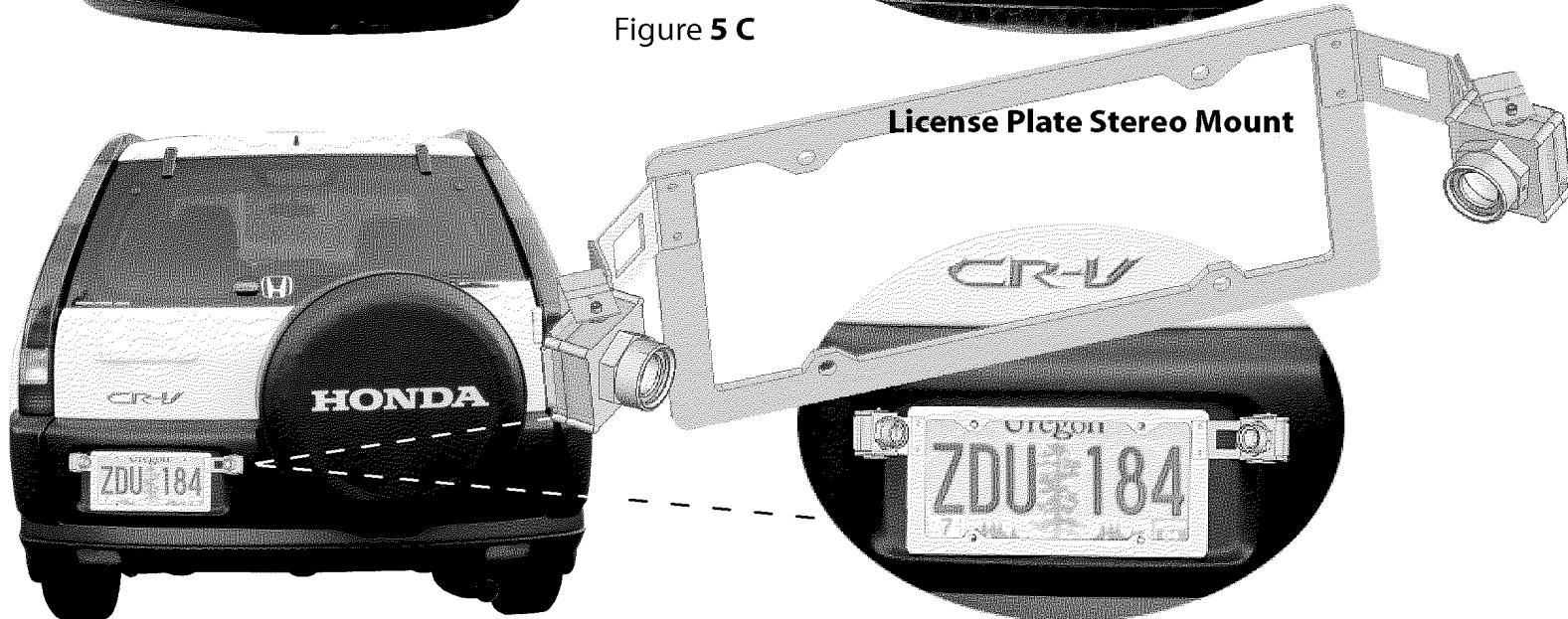


Figure 5 C



## 6. Dual Cameras Rear Object Detection Technique

with Uniform License Plate On Frame Mount

fit to all vehicles

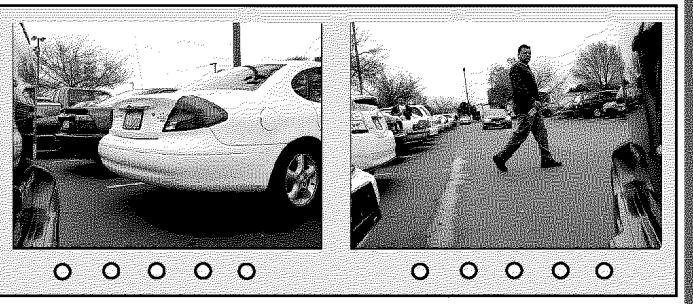


Figure 6A

Rear side walk people or bike detection

Figure 6B

Approaching detection in the e-Mirror

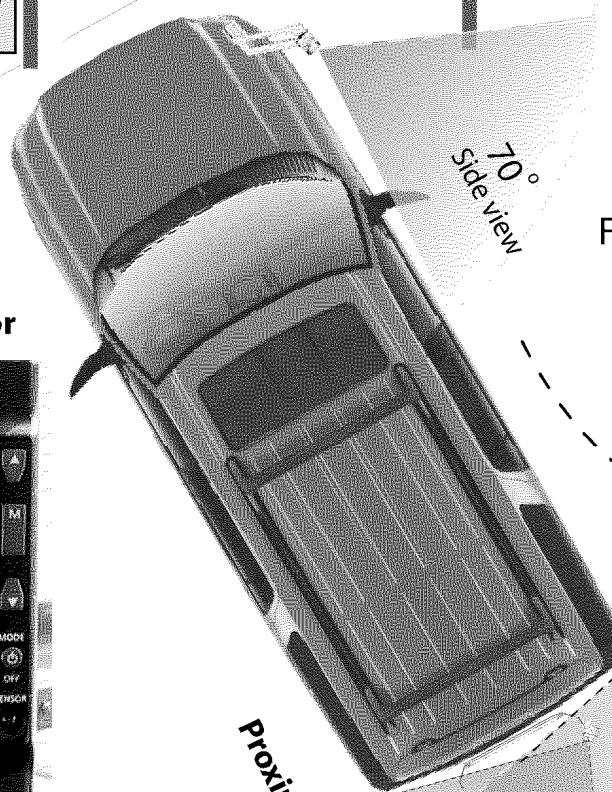


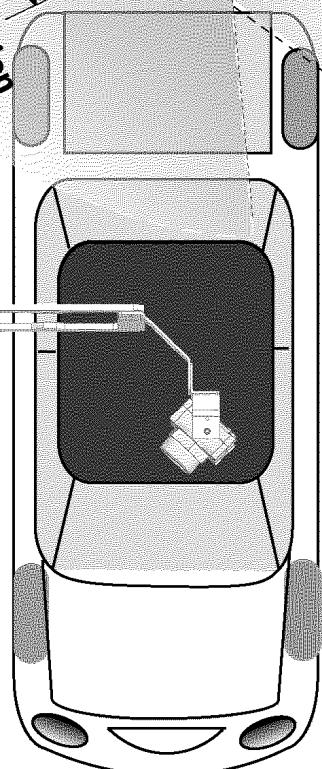
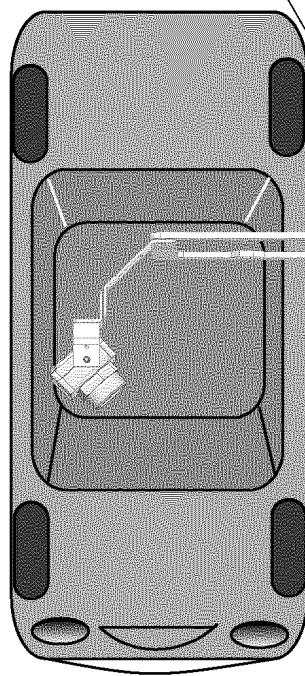
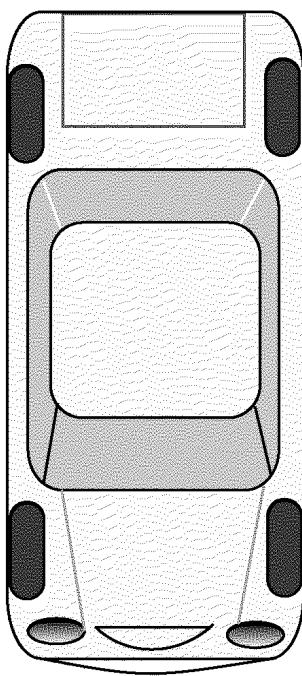
Figure 6C

Pull out from parking spot

Proximity Detection

Proximity Detection

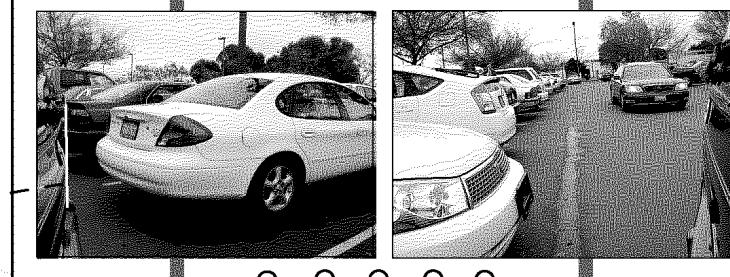
License Plate Mount  
Zoom In



## 7. Better Proximity Detection Rear Corner Mount Technique with Dual Cameras Corner Mount

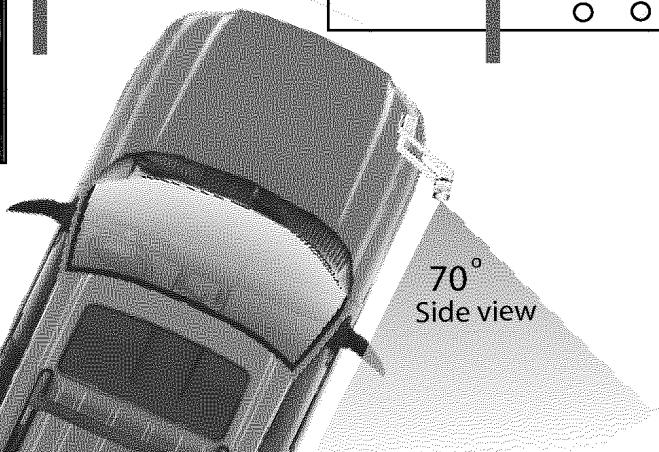


Figure 7A Proximity View at lower



○ ○ ○ ○ ○

Figure 7C



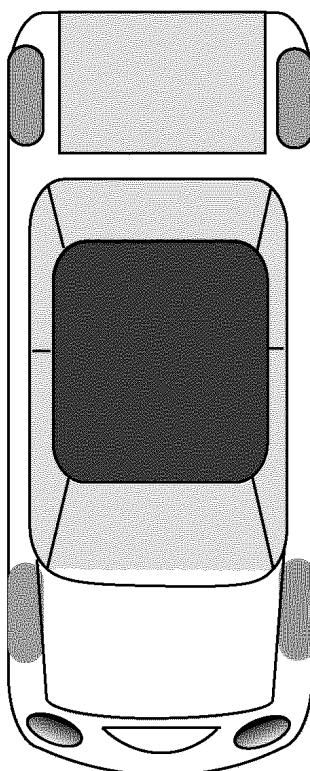
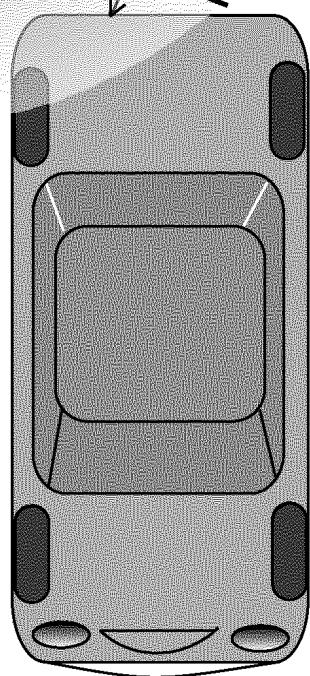
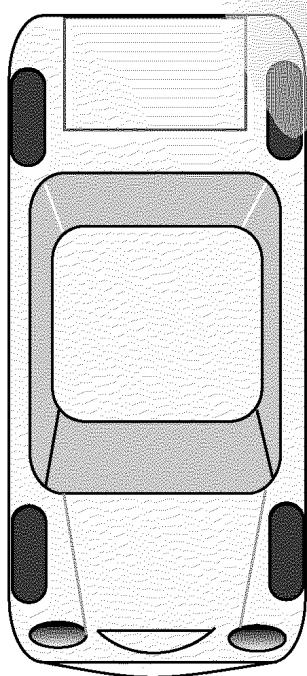
70° Side view

Proximity View on Upper



○ ○ ○ ○ ○

Figure 7B



180° Rear view

## 8. Object Approaching Detection At Blind Spot

Figure 8 A

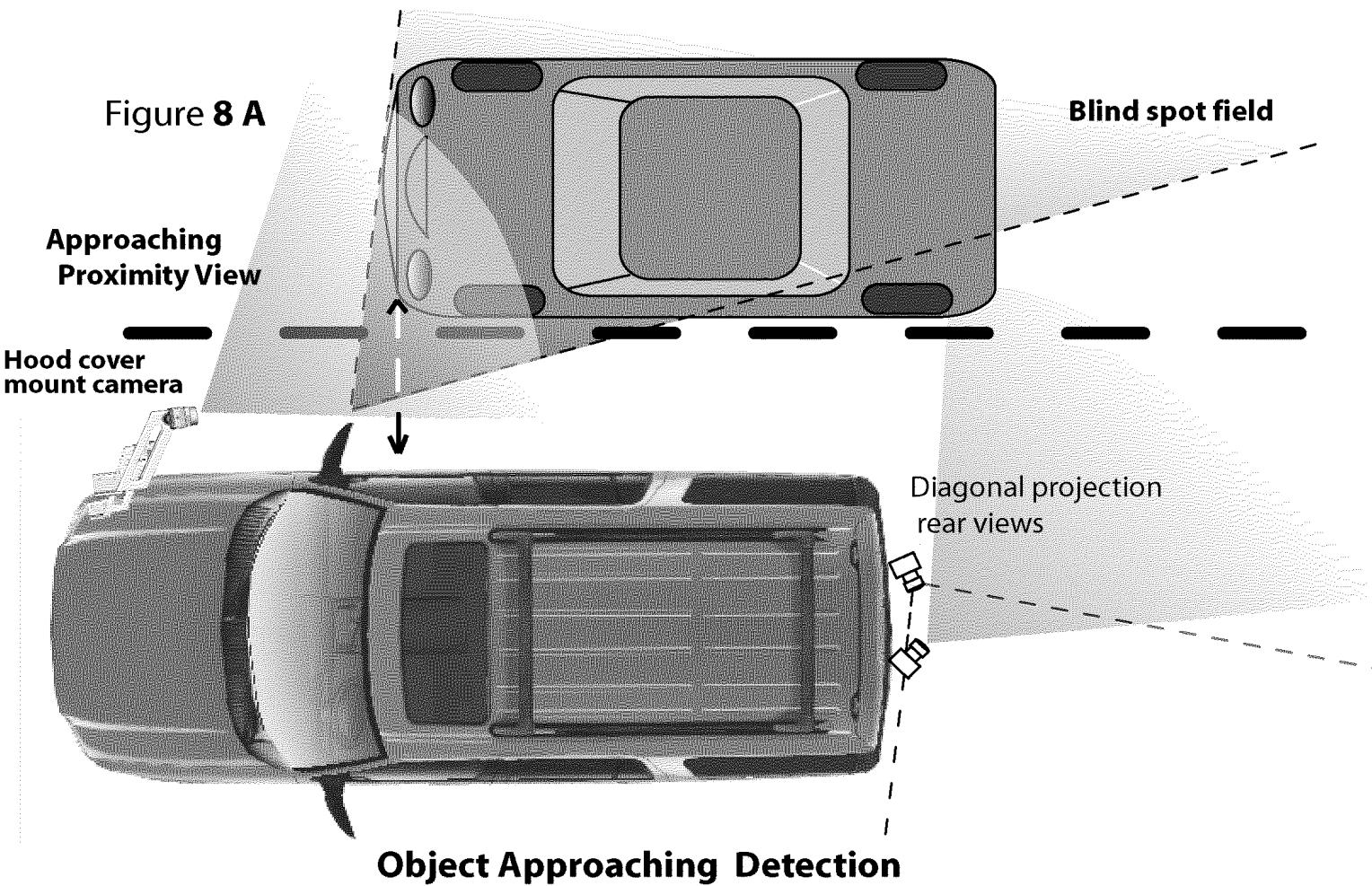
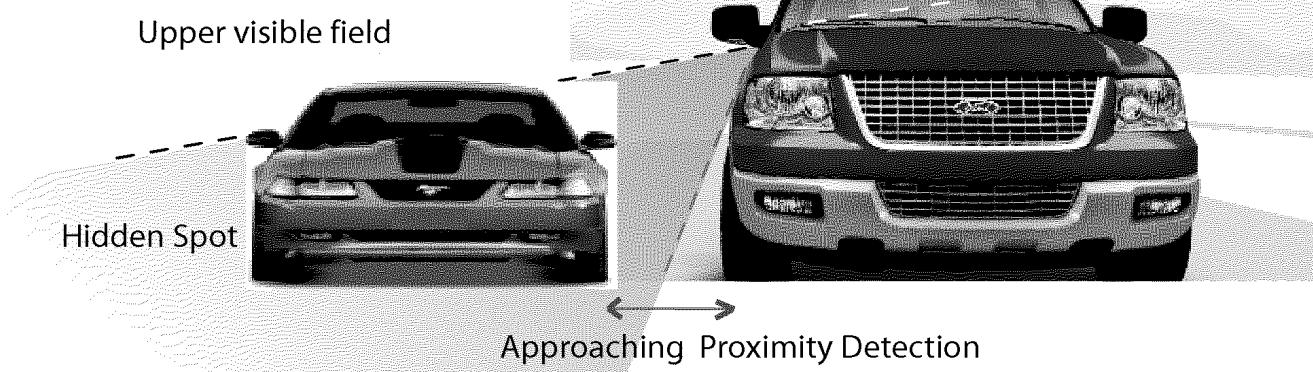
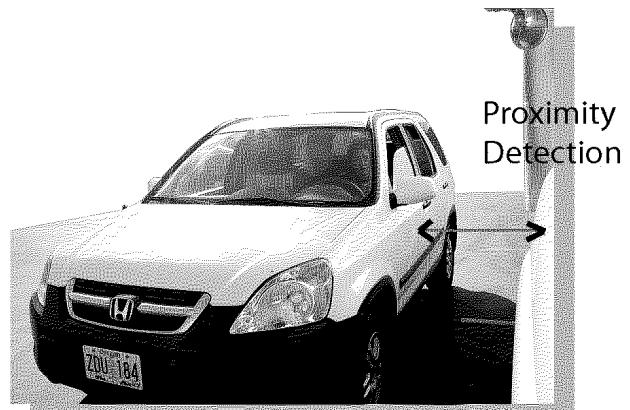


Figure 8 B



The blind spot view at passenger side

Figure 8 C



Camera view on right blind spot of a truck

## 9. Hood Front Corner Side Edge Mount Technique

No visible drilling holes on shiny coating of vehicle

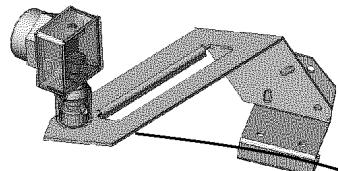


Figure 9B

Bracket is attached on side edge of hood near front corner

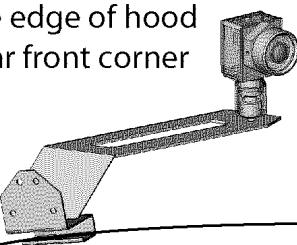
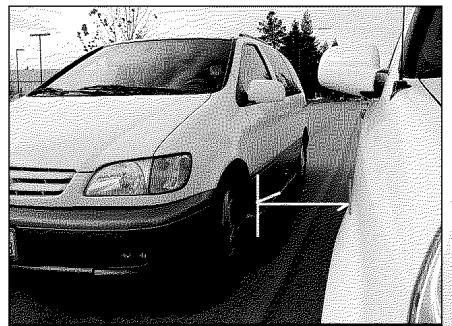


Figure 9A

The camera is mounted outside of the vehicle a few inches away.

Bracket is attached on side edge of hood near front corner

No screw drilled holes on visible surface



Front Corner  
Blind Spot View

70° Blind Spot view

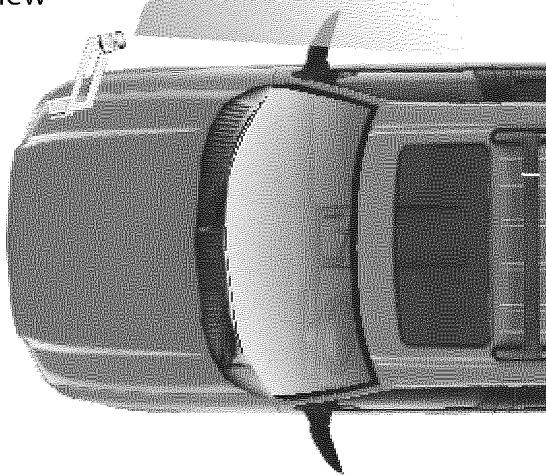
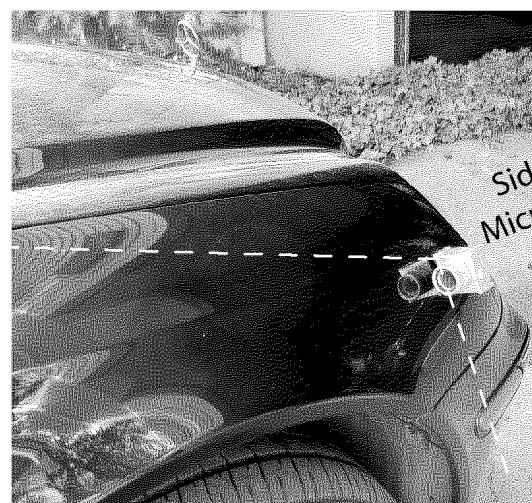


Figure 9C

An easy glue stick able mount



Side Views  
Micro Cameras

## 10. Truck & Tow Truck e-Mirrors Setting

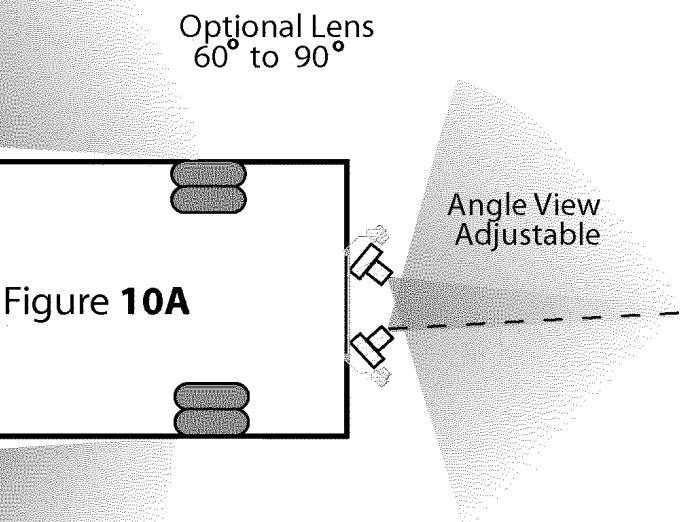
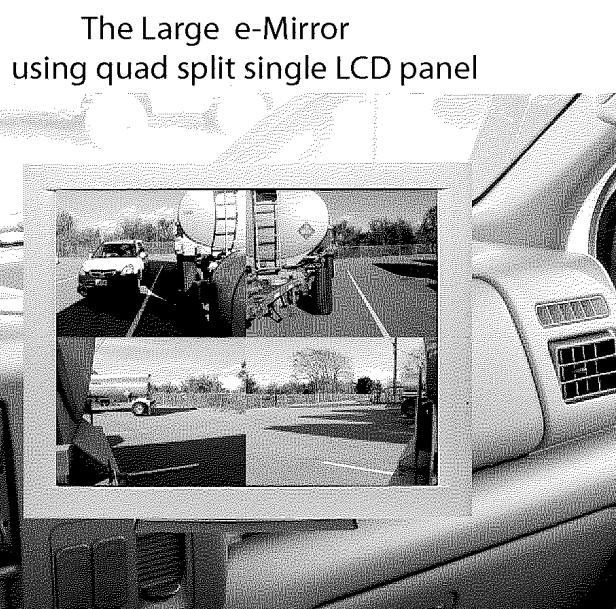


Figure 10A



The Large e-Mirror using quad split single LCD panel

Large e-Mirrors using 4 LCD panels integration

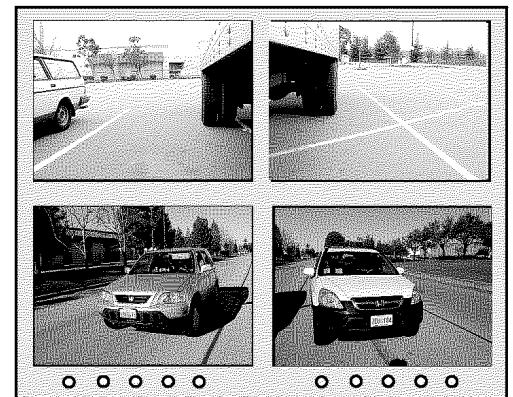


Figure 10B

Figure 10E

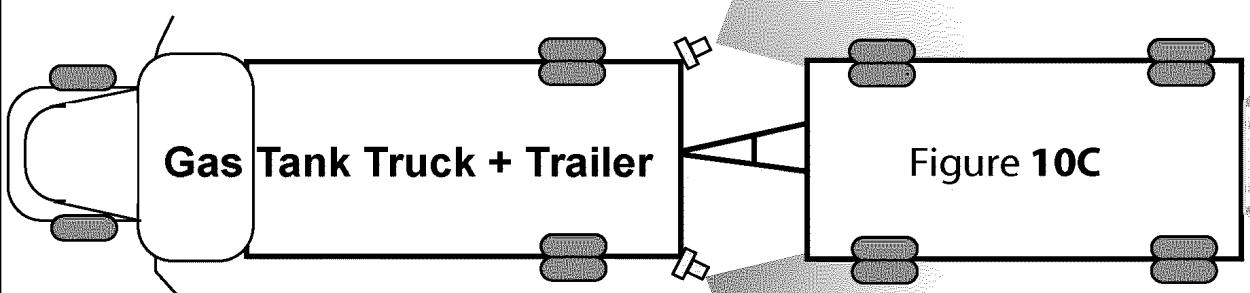
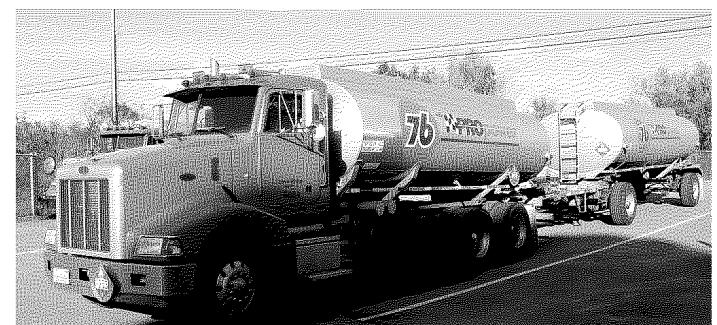


Figure 10C

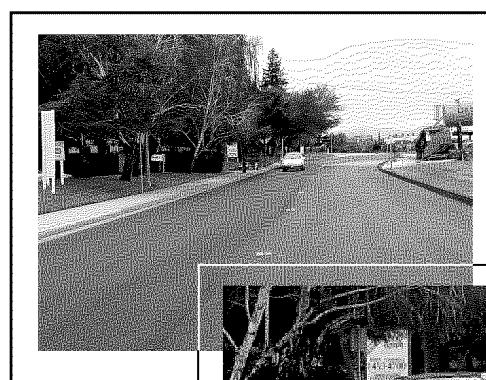
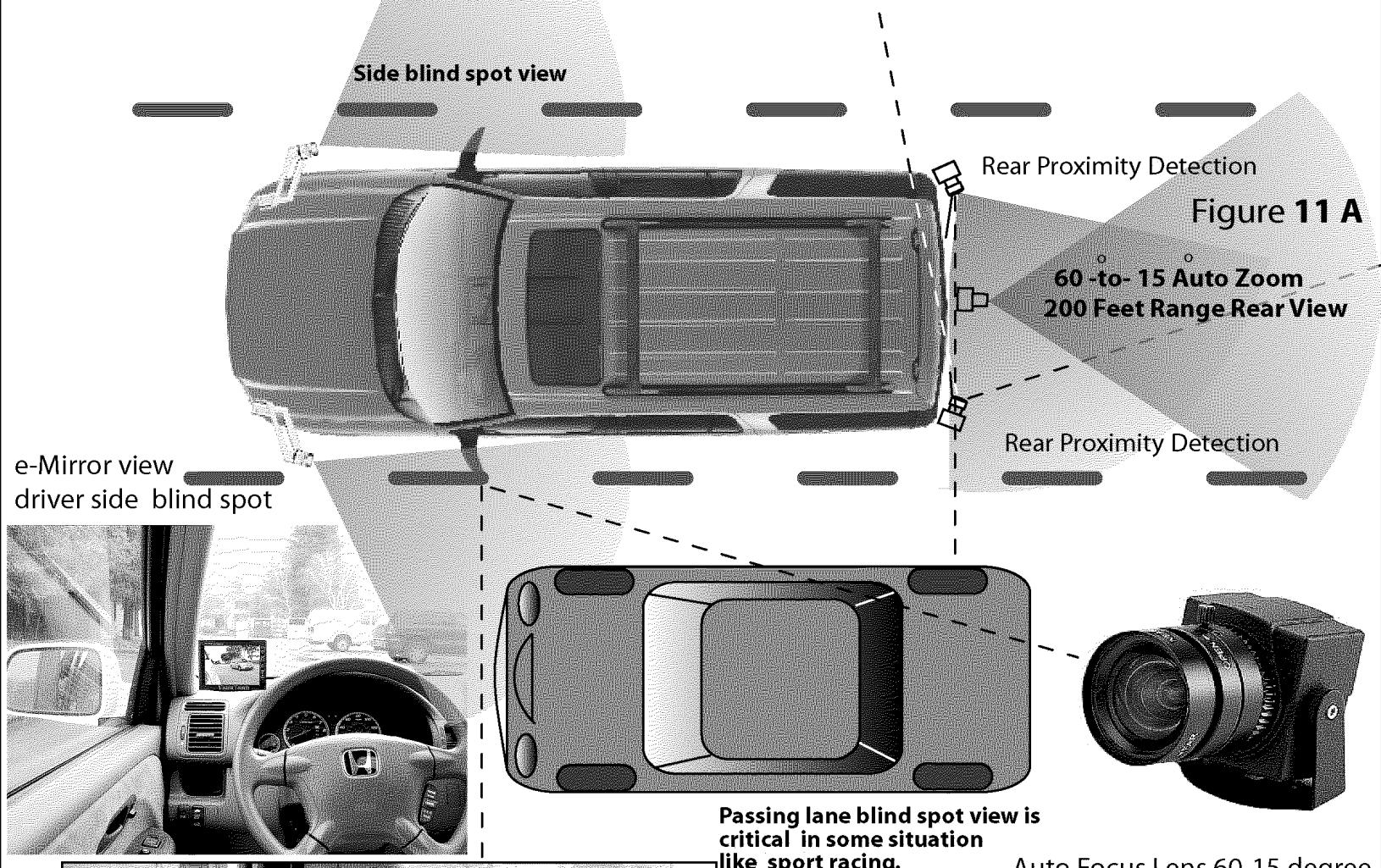


Tow Truck on Dash e-Mirrors



# 11. Panoramic High Safety Views for Mission Vehicles

Military Vehicles, Highway Patrol , Border Patrol,  
Police Vehicles, Secret Service Vehicles, Fire truck  
Armored Truck, Overman Vehicles, Sport & Racing Vehicles,

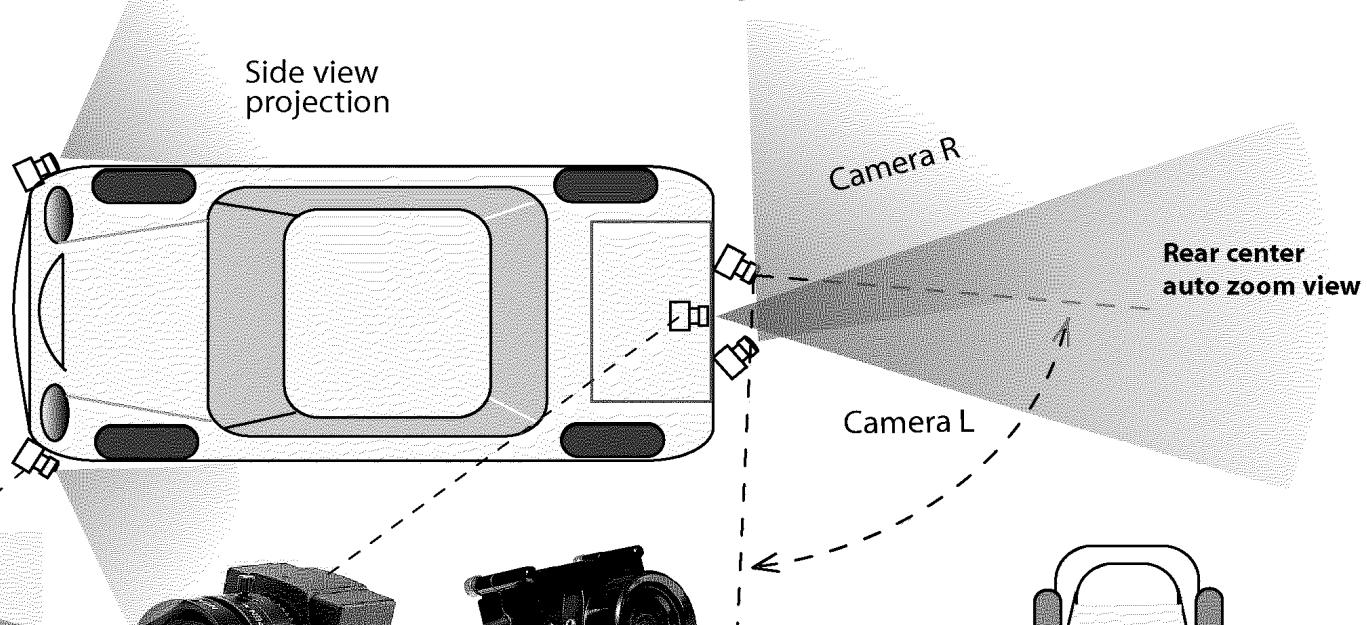


Zoom In 200 feet View

Auto Focus Lens 60-15 degree  
for central rear 200 feet.  
CS mount Len

## 12. Multi-Cameras, LCD e-Mirrors & Quad Video Processor Configurations

Figure 12 A



Driver side camera

Rear center auto zoom camera

Passenger side camera

VisionTouch

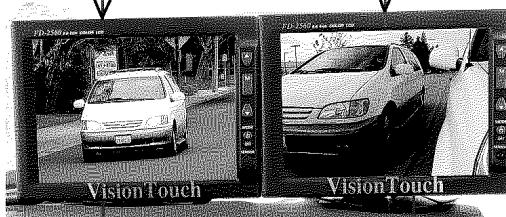
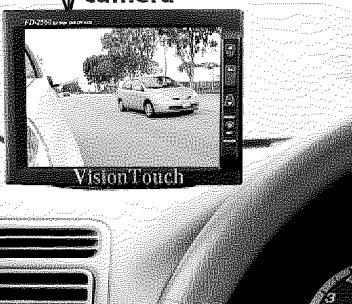


Figure 12 B

Figure 12 C

License plate cameras

For Large Vehicles

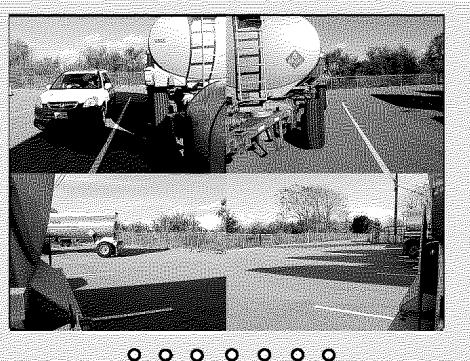


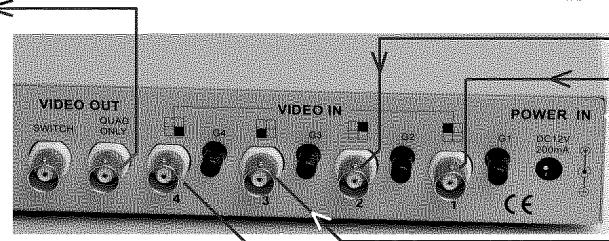
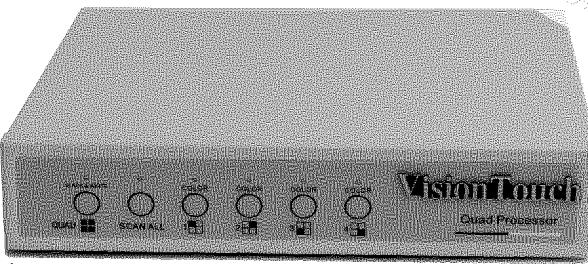
Figure 12 E

Figure 12 D

Container Truck

Figure 10A

Digital Quad Split Processor Options : B/ W; Color



Angle View Adjustable